

## OVERVIEW

UltraCrete is a 2-K positive-negative pressure waterproofer which combines the flexibility and adhesion of high performance positive pressure waterproofer with the functionality of a negative pressure grade. This combination greatly simplifies negative pressure waterproofing. UltraCrete also provides a film which has excellent durability combining superior tensile strength with low temperature crack bridging capability.

## PROPERTIES

UltraCrete has the following properties:

- Positive pressure waterproofing up to 1.5 bar for a 2mm film.
- Negative pressure waterproofing up to 1.5 bar for a 2mm film
- Excellent crack bridging capability
- High tensile strength
- Good vapour permeability
- Good low temperature flexibility
- Excellent adhesion
- Easy application
- Application by brush, roller or spray

## ADVANTAGES

- Permanent waterproofing
- Abrasion resistant
- Weather resistant
- High adhesion power
- Good flexibility
- Cement mortars adhere to it
- Bridges cracks in substrates

## AREAS OF USE

UltraCrete is suitable for waterproofing masonry substrates in the following areas:

- Basements
- Carparks
- Lift pits
- Swimming pools
- Foundations

## PREPARATION OF SURFACE

**For Positive pressure resistance** (water exerts pressure directly onto the coating), Ensure substrates are clean and sound. Remove all existing coatings, cement laitance, unsound honeycombing and spalling concrete by suitable mechanical means.

All dust, dirt and loose materials must be thoroughly removed by brush, broom or vacuum from the areas to be coated. Grind off all ridges and sharp projections. Scrape off all flaking material and remove oils, grease and other adhesion inhibiting substances. Mortar joints must be sound and finished flush with the blockwork.

In situations requiring reinforcement and at all wall and floor corner junctions, pipe entries and drains, it is recommended to apply the respective Terratape reinforcing membrane or Terraco Flexitape or Terraco Sealing Tape, depending on area of application.

Cracks and surface defects must be made good using suitable Terraco repair products. Create a fillet in the corners where required, prior to application of UltraCrete.

In the presence of water which continuously seeps through, seal off the flow using Terraco Pluggit 311 and then continue as described above.

Dry and porous substrates should be primed with Terrabond A (diluted 1:3 with clean water) or Terraco Waterproofing Primer (undiluted). Other surfaces should be saturated with water prior to application but no standing water should be present.

**For Negative Pressure resistance**, (water exerts pressure to opposite side of the coating) **UltraCrete is applied over unprimed concrete surfaces.**

## MIXING

It is recommended to mix full kits only.

Place the resin in a clean mixing vessel then slowly add the powder while mixing for at least 3 minutes with a slow speed mixer (200-600 rpm) until the mix is completely homogeneous and lump free. Ensure the blade remains below the surface of the mixture to minimise the entrapment of air and that no powder remains unmixed on the sides and in the corners of the mixing vessel. Leave to stand for at least 5 minutes to release any entrapped air. Mix again for 30 seconds before application. During application, ensure occasional stirring to keep the aggregates in suspension.

### Note:

Do not add water to adjust or re-temper the mix. For bulk mixing, mix only required kits of UltraCrete that can be used within its pot life.

**APPLICATION & CLEANING OF TOOLS**

Ultracrete can be applied using brush or broom and worked into the surface thoroughly. Apply onto the freshly prepared substrate in 2-3 coats, applying each coat at right angles to each other, to a total thickness of 1.5 to 2.0mm. Total consumption is 2.8-3.8kg/m<sup>2</sup> (mixed Ultracrete). It is recommended that the total application thickness be 1.5 mm under tiles and 2.0mm for exposed areas.

Leave minimum 6 hours between coats for drying at 25°C. Mixed Ultracrete must be used within 1 hour of mixing (do not re-temper with additional water).

Clean tools and equipment with water immediately after use

**CURING**

Curing and drying times depend on ambient temperatures, atmospheric humidity and thickness of coating.

Protect surfaces from wind and direct heat during application and curing. Do not apply in humid conditions >80%.

Ultracrete will be surface dry in less than 3 hours at 30°C.

Allow first coat of Ultracrete to dry for a minimum of 6 hours before over-coating. Ultracrete should be left to cure for at least 7 days before water flood testing. Tiling work should be commenced after minimum 3 days of Ultracrete application.

Protect surfaces from wind and sources of direct heat during application and curing.

**LIMITATIONS**

Do not apply during rising temperatures to avoid the risk of outgassing resulting in pin-holing. Do not apply on bituminous coatings. For exterior areas, do not apply if rain is likely over the next 24 hours.

**HEALTH & SAFETY**

Avoid prolonged contact with eyes and skin. For detailed information refer to relevant material safety data sheet.

**PACKAGING & STORAGE**

Ultracrete is supplied in 20 kg kit (5kg resin in jerrican and 15kg powder in paper bag).

Store material in a clean dry area protected from high humidity, moisture, direct sunlight and extreme heat and cold. Unopened packs can be stored for 12 months. Use oldest material first.

TERRACO offers a comprehensive range of products and services for most concrete and finishing needs. Please contact the TERRACO Technical Service Department or your local TERRACO agent for further information, samples, demonstrations and instructor services. The information given in this leaflet is based upon laboratory research, as well as extensive field work and application. All products are sold subject to standard conditions of sale which are available on request. This information is based on TERRACO's present state of knowledge and is intended to provide general information on TERRACO's products and their methods of use. The prospective user is recommended to determine the suitability of TERRACO's suggestions and products before adopting them on a commercial scale.

#### TECHNICAL DATA

<b>Product</b>	2-K positive-negative pressure waterproofer
<b>Binders</b>	Hydraulic and organic
<b>Colour</b>	Grey (mixed Ultracrete).
<b>Application Conditions</b>	5 °C to 30 °C
<b>Mixing Ratio</b>	15 kg Powder: 5 kg Resin
<b>Material Consumption</b>	2.8-3.8 kg/m <sup>2</sup>
<b>Pot life</b>	1 hour @ ambient temperature
<b>Adhesive Strength</b>	>0.5 N/mm <sup>2</sup>
<b>Resistance to Hydrostatic positive pressure (EN 14891:2007)</b>	No water penetration at 1.5 Bars.
<b>Resistance to Hydrostatic negative pressure</b>	No water penetration at 1.5 Bar.
<b>Drying Time</b>	3 hours in normal conditions (mixed Ultracrete). Recoating time 6-8 hours.
<b>Specific Gravity</b>	1.70 – 1.80
<b>Packaging</b>	20kg kit (15kg powder in paper bag and 5kg resin in jerrican) – supplied with or without plastic pail.
<b>Storage</b>	12 months in original unopened packs.

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